

CLAIMS

1. a vacuum insulator using glass white wool comprising:
a glass white wool molded body which is $0.1\sim0.5\text{g/cm}^3$ in density, and
is below $0.0023\text{kcal/mh}^\circ\text{C}$ in thermal conductivity; and
5 a non permeable container surrounding the molded body in which
pressure is between $10^{-6}\sim10^{-1}$ torr.
2. A fabrication method of the vacuum insulator using glass white
wool comprising the steps of:
10 piling glass white wool including no organic or inorganic binder to be
a certain shape;
molding the piled glass white wool by heating and pressing it in a
temperature under 20°C above strain point of the glass white wool, under
pressure between $0.007\sim1.5\text{kg/cm}^2$, for more than 10 minutes; and
15 decompressing the molded glass white wool by putting it into the non
permeable container and evacuating.
3. The method of claim 2, wherein the lowest molding temperature
is higher than a temperature which is 110°C below the strain point of the glass
20 white wool in the step of molding the glass white wool.
4. The method of claim 2, wherein a density of the molded glass
white wool is between $0.1\sim0.5\text{g/cm}^3$.

5. The method of claim 2 further comprising a step of fabricating edges of the glass white wool body before putting the body into the non permeable container.

5 6. The method of claim 2, wherein the non permeable containers made using stainless steel thin plate having thickness less than 120 μ m.

7. The method of claim 2, wherein a pipe for evacuating is disposed on one side surface of the non permeable container.

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8. The method of claim 7 further comprising a step of sealing the pipe by pressing after the step of evacuating the glass white wool in the non permeable container.

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9. The method of claim 2, wherein the pressure is to be between 10^{-6} ~ 10^{-1} torr in the step of evacuating the glass white wool in the non permeable container.